

*The public's interest in white-tailed deer in Wisconsin hasn't waned over the last 150 years. If anything, it's intensified. The traditions that have developed are deep and meaningful to the hunting public.*

*Photo: White-tailed buck.*

Many have expressed the view that deer hunting is the most important recreation in their lives. It's no small wonder that deer hunters get excited when the DNR messes around with the deer season framework. The fact that it is sound, scientific wildlife management that has been the primary responsibility for the phenomenal success of this highly visible program is only an academic point. It seems like many hunters (at least those testifying at public hearings and writing complaint letters) care only about "getting that big buck," and the principles of good management are lost in a stack of deer carcasses. Unfortunately, there was a day of reckoning for hunters' buck bias that led to maintaining huge numbers of deer in the state and the continued refusal of the Conservation Congress to come to grips with too many deer management units exceeding over-winter goals. The DNR shares in this blame because its policy makers and program leaders were well aware the herd was seriously growing out of control after 1988. The deer story as it unfolded during the next 17 years is somewhat grim but fascinating. Big Game Administration, supervising the big game portion of the wildlife management program has always been very difficult. It has been embroiled in controversy, maligned by the uninformed, and constantly in the limelight. The people who served or served as program leaders earned the respect of their peers because of the extraordinary stress they endured and their demonstrated job dedication. They have been subject to personal abuse well beyond most civil servants and, in the opinion of this author, should receive some sort of medal. The position of big game supervisor evolved in the bureau following staff reorganization in 1958. Initially, the position was vacant, and John Kenna absorbed those duties. Researcher Art Doll eventually filled the position in 1962 but left to lead a new planning bureau the following year. George Martman filled the position from 1963 to 1969 and was replaced by Frank Haderland. Frank became legendary in the position by serving 20 years before he retired in 1989. Bill Ishmael replaced him under the fancier title of "deer and bear ecologist." Ishmael appeared to be perfect for the job. He and his family had a long tradition of deer hunting, his graduate work leading to his master's degree involved deer, and his wildlife biologist job with DNR in southeastern Wisconsin involved urban deer. His personality was pleasant and his knowledge about Wisconsin deer superb. After just two years transferred back to the field. Some speculated that he left the normalcy of the field over to the comfort office. Ishmael, informing those who asked that it was tied to the even-odd rotation of the job and the never-ending battles with the Conservation Congress ecologist position remained after Ishmael left the bureau. That left Mylton, a central force in the job. Mylton was on and Wildlife Service (FWS) agency cooperation. Agree- been serving on the Bureau staff as a planning analyst. tials for the new job he had and M.S. (1979) in wildlife ecology from the University of Wisconsin. After obtaining an additional degree in range management from the University of Wyoming in 1979, he worked as a range manager for the Corps of Engineers in Colorado for two years. He became a wildlife technical assistance biologist for the FWS in 1981 and worked in several western states on deer and elk management before settling in Wisconsin. His liaison experience working with several Native American Indian tribes in Wisconsin honed his skills in working with groups and constituency groups. Consistent with his predecessors, Mylton community visits and community meetings in order to address deer management issues. And consistent with his predecessors, he received a great deal of criticism from hunters and an often angry Conservation Congress leadership. While he kept his seat and maintained good rapport with everyone he worked with, he spoke freely about what he believed was the right way to manage deer. In 1991, he received an offer from the Rocky Mountain Elk Foundation to work for them in Montana and Wyoming. After evaluating the Rocky Mountain elk disease (CWD) plan, he accepted the offer and left the DNR but not without candid comments about the negative aspects of the program. The constant bickering with the Conservation Congress leadership and the difficulty working with the Wisconsin Department of Agriculture, Trade, and Consumer Protection and the Civil Conservation Corps (CCC) were cited as major program impediments. The deer and bear ecologist position was again vacant because of budgetary restrictions and a hiring freeze. This time for two years. Several inquiries came in during this period. Michele Windsor, a wildlife biologist stationed at Black River Falls, was acting big game supervisor for 18 months. Finally, after the usual screening and interview process in 2006, Keith Warkke was selected for the position. Warkke had earned his degree from the University of Wisconsin and a master's degree from the University of Minnesota in 1996. He served for six months as a legislative aid for Representative DuWayne Voigtland before being hired by the DNR as the urban game ecologist on the Bureau of Wildlife Management staff in 1997. Shortly thereafter, he accepted the deer and bear ecologist position. Warkke had his work cut out for him.



## Chapter 9 Deer Management and CWD, 1991-2005

The previous chapters leading up to the 1990s set the stage for what was to come in the deer program. The historical perspective is important for the reader to recognize the issues involved and to gain an appreciation for the dedication exerted by the Bureau of Wildlife Management staff, wildlife managers, and deer researchers. Challenging scientifically based data can be a good thing.





DNR FILE

The public's interest in white-tailed deer in Wisconsin hasn't waned over the last 150 years. If anything, it's intensified. The traditions that have developed are deep and meaningful to the hunting public. (A chronology of deer hunting in Wisconsin from the nineteenth century to the present is shown in Appendix P.) Many have expressed the view that deer hunting is the most important recreation in their lives. It's no small wonder that deer hunters get excited when the DNR messes around with the deer season framework. The fact that it is sound, scientific wildlife management that has been chiefly responsible for the phenomenal success of this highly visible program is only an academic point. It seems like many hunters (at least those testifying at public hearings and writing complaint letters) care only about "getting that big buck," and the principles of good management are lost in a stack of deer carcasses.

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## Big Game Administration

Supervising the big game portion of the wildlife management program has always been very difficult. It has been embroiled in controversy, maligned by the uninformed, and constantly in the limelight. The people who served or serve as program leaders earned the respect of their peers because of the extraordinary stress they endured and their demonstrated job dedication. They have been subject to personal abuse well beyond most civil servants and, in the opinion of this author, should receive some sort of medal.

The position of big game supervisor evolved in the bureau following staff reorganization in 1958. Initially, the position was vacant, and John Keener absorbed those duties. Researcher Art Doll eventually filled the position in 1962 but left to lead a new planning bureau the following year. George Hartman filled the position from 1963 to 1969 and was replaced by Frank Haberland. Frank became legendary in the position by serving 20 years before he retired in 1989. Bill Ishmael replaced him under the fancier title of "deer and bear ecologist."

Ishmael appeared to be perfect for the job. He and his family had a long tradition of deer hunting, his graduate work leading to his master's degree involved deer, and his wildlife biologist job with DNR in southeastern Wisconsin involved urban deer. His personality was pleasant and his knowledge about Wisconsin deer and its management history superb. After just two years on the job, Ishmael suddenly transferred back to the field (Spring Green) in 1992. Some speculated that he left simply because he preferred the normalcy of the field over the hectic bureaucratic pace of the central office. Ishmael, however, was not shy about informing those who asked directly about his rationale that it was tied to the seven-day work week required of the job and the never-ending, counterproductive battles with the Conservation Congress.

The deer and bear ecologist position remained vacant for several months after Ishmael left the bureau. It wasn't until early 1993 that Bill Mytton, a central office staffer, was selected for the job. Mytton was on loan from the U.S. Fish and Wildlife Service (FWS) under an unusual Interagency Cooperative Agreement with the DNR and had been serving on the Bureau of Property Management staff as a planning analyst. Mytton had solid credentials for the new job. He had received his B.S. (1974) and M.S. (1979) in wildlife ecology from the University of Wisconsin. After obtaining an additional degree in range management from the University of Wyoming in 1979, he worked as a range manager for the Corps of Engineers in Colorado for two years. He became a wildlife technical assistance biologist for the FWS in 1981 and worked in several western states on deer and elk management before coming to Wisconsin. His liaison experience working with several Native American Indian tribes in the west honed his skills for working with people and constituency groups.

Consistent with his predecessors, Mytton committed nights and weekends in endless meetings to address deer management issues. And consistent with his predecessors, he endured nasty remarks and personal criticism from irate hunters and an often-angry Conservation Congress leadership. While he kept his cool and maintained good rapport with everyone he worked with, he spoke firmly about what he believed was the right path in deer management, even if he was at odds with department administrators.

In 2002, Mytton received an offer from the Rocky Mountain Elk Foundation to work for them in Montana and Wyoming. After initiating Wisconsin's chronic wasting disease (CWD) plan, he accepted the offer and left the DNR but not without candid comments about the negative aspects of his old job. The constant bickering with the Conservation Congress leadership and the difficulty working with the Wisconsin Department of Agriculture, Trade, and Consumer Protection and the *cervid industry* on the CWD problem were cited as major program impediments.

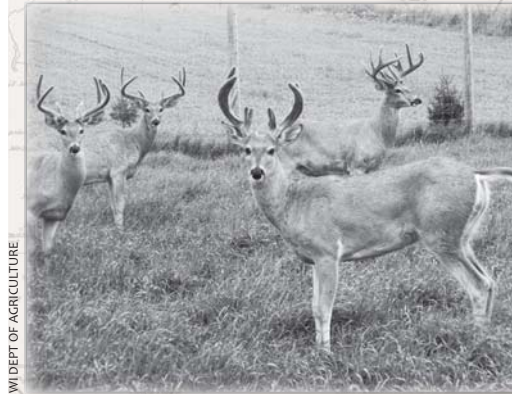
The deer and bear ecologist position was again vacant because of budgetary restrictions and a hiring freeze, this time for two years. Several biologists filled in during this period. Michele Windsor, a wildlife biologist stationed at Black River Falls, was acting big game supervisor for 14 months.

Finally, after the usual screening and interview process in 2004, Keith Warnke was selected for the position. Warnke had earned his B.S. degree from the University of Wisconsin and a master's degree from the University of Minnesota in 1996. He served for six months as a legislative aid for Representative DuWayne Johnsrud before being hired by the DNR as the upland game ecologist on the Bureau of Wildlife Management staff in 1997. Shortly thereafter, he accepted the deer and bear ecologist position. Warnke had his work cut out for him.

## Deer Management

The previous chapters leading up to the 1990s set the stage for what was to come in the deer program. The historical perspective is important for the reader to recognize the politics involved and to gain an appreciation for the frustration experienced by the Bureau of Wildlife Management staff, wildlife managers, and deer researchers. Challenging scientifically based data can be a good thing provided discussions remain objective and factual. However, when participants resort to personal insults, emotionally driven tirades, and made-up facts to influence decision makers, it is most difficult to move beyond the discussion stage. That precise deer program scenario has been played out over the past 30 years.

Despite having just received strong endorsement of the deer program from both the Wisconsin Chippewa Tribe and Dr. Scott Craven's ad hoc deer committee, underscored by an impressive 1991 harvest of over 400,000 deer, political pressure from a few disgruntled deer hunters led to yet another study of the DNR's deer program. The Legislative Audit Bureau undertook a yearlong evaluation of agency deer management policies. The audit report was completed in November 1992 and *could find no basic fault with DNR deer population estimate methods*. It documented that actual harvests had generally matched projections (see Table 16). The auditors went on to recommend improvements



*Cervid industry*  
Deer and elk farm license holders  
and related organizations.



## The Gamekeepers

**Table 16.** Estimated and actual gun season harvest, 1987–1991.

Year	Estimated Harvest	Actual Harvest	% Difference
1987	310,000	293,181	-5.4%
1988	270,000	263,424	-2.5%
1989	285,000	310,192	+8.1%
1990	370,000	350,040	-5.7%
1991	380,000	352,520	-7.8%

in the regulations input process, better publicity of available hunting land, standard explanations of the Sex-Age-Kill (SAK) system for public presentations, and other minor suggestions. The exact language in the audit report introduction follows:

*We found no evidence that the basic principles of the process used to estimate the deer population are incorrect, but we identify several measures that would assist the department in further improving the accuracy of its estimates, thereby increasing public support for its policies. For example, to more accurately estimate the non-hunting mortality rate, we recommend that the department incorporate data on deer killed by vehicles in population estimates for selected areas of the state.*

Seven of 12 audit recommendations were made for improving public participation, receptivity, and confidence in the DNR's decisions affecting deer management. The fact that the winter deer herd population was estimated at 1.25 million and "significantly above the department's post-hunt goal of 700,000 deer" was only mentioned in passing.

Technical staff members were rather disappointed with the report, but Secretary C.D. "Buzz" Besadny, who had seen several other more negative reports from the Legislative Audit Bureau, was quite pleased with it.

Deer researcher Keith McCaffery responded to the auditors' suggestions for SAK improvement:

*Folks that try to incorporate road kills into the SAK are attempting to make the SAK into an accounting model, which it is not. The SAK estimates herd size at two points in the year—prehunt and posthunt. Road kills, poaching, predation, disease, and all that other stuff that is normally proportional from one year to the next fall out of the SAK equation. Instead, much of this adjustment is made in the "Buck Recovery Rate" (one of the six unit-specific inputs when using SAK). To do otherwise would require adding in the deer that are subsequently subtracted out (one of the complexities of an accounting-type population model). The SAK is far simpler and requires far less data.*

### 1991 and 1992 Deer Seasons

Weather in the fall of 1991 played a part in creating some technical difficulties for the DNR that would impact its credibility later. A blizzard on Halloween dumped 30 inches of snow on areas of northwest Wisconsin, prematurely drove some deer into yards, and interfered with the rut. A second blizzard on the opening weekend of the gun deer season deposited deep snow from Prairie du Chien (southwest) to Niagara (northeast above Green Bay) with rain south and east of the snow line.

This sequence of storms confounded the assumptions underlying the SAK model. *For the first time in 30 years, the SAK was not used to update population statistics.* Without the SAK model, biologists had to use the 1990 database to predict herd size in 1992. This procedure worked reasonably well in all but 18 north central deer management units where the actual deer numbers turned out to be significantly lower than the DNR predicted. Biologists also noted that the lower yearling percentages detected in 1990 and 1991 were continuing. The deer herd was estimated at 1.25 million prior to the 1992 fall hunting season or about 15–20% above the expected fall herd size at goal.

Tom Hauge became bureau director prior to the 1992 deer season. As luck would have it, record poor recruitment (number of spring fawns surviving to fall) and poor



hunting conditions (heavy fall rains and much more standing corn than normal) led to 288,820 registered gun-killed deer, far below DNR projections. Although the statewide buck kill was only 8% below the prediction, the 18 north central units became an Achilles heel for attacks by the Conservation Congress. The archery harvest also declined to 60,478. The total statewide harvest, however, *exceeded* what would have been expected had the herd been at goal.

When Hauge had to appear in front of 360 county Conservation Congress delegates at their annual statewide meeting, chair Bill Murphy said, "I expect an apology from the department for letting Wisconsin deer hunters down." While Hauge went on to describe the details of the deer season, the reception for his first major public presentation was far from cordial.

### 1993 Deer Season

In 1993, wildlife managers and researchers embarked on a huge review of the statewide deer management program consistent with new Administrative Code procedures requiring such a review every three to five years. The Conservation Congress and Great Lakes Indian Fish and Wildlife Commission (GLIFWC) biologists participated in a thorough review of the findings. A report entitled *Review of Over Winter Goals for Wisconsin's Deer Management Units* was prepared for all six DNR districts and resulted in several adjustments in the goals.

The previous deer season result continued to draw strong criticism from the Conservation Congress. DNR deer population estimates put the number at one million prior to the 1993 hunting season. The reduced number of deer led to eliminating all antlerless harvest quotas in many northern deer units that fall. The gun deer kill dropped to 217,584 (including 2,521 deer taken through the agricultural damage shooting permit program), and the archery season produced 53,008 deer. The eternal skeptics were sure this was the beginning of the end of the deer herd.

### 1994 Deer Studies

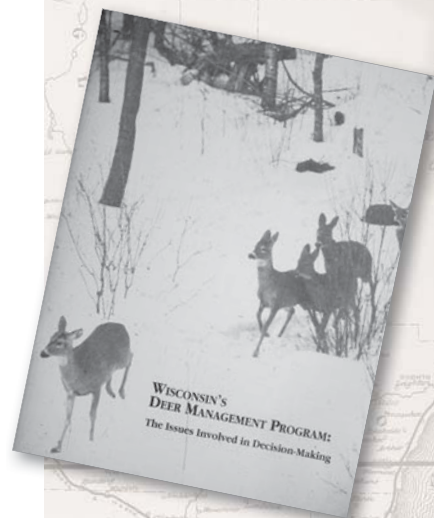
In 1994, in conjunction with draft regulations to modify the Natural Resources Board policy (s. NR 1.15, Wis. Admin. Code) on deer management units, harvest levels, and over-winter population goals, bureau staffers Bill Vander Zouwen and Keith Warnke coordinated compilation of an environmental impact assessment on the deer program entitled *Wisconsin Deer Population Goals and Harvest Management Environmental Assessment*. The assembled data resulted in a massive document (304 pages). Twenty-four individuals with solid experience on a variety of expertise participated in the writing process. A companion publication, *Wisconsin's Deer Management Program—The Issues Involved in Decision Making*, assembled by Wendy McCown and Michelle Jesko (now Voss), was also produced in 1994 to follow through on Legislative Audit Bureau recommendations to improve the public's understanding of the program. Multiple DNR researchers and Dr. Scott Craven from the University of Wisconsin contributed

## Deer Damage Shooting Program

Wisconsin continued to issue deer shooting permits to landowners experiencing damage to crops throughout the 1992–2005 period (Table 17). In 1998, the law changed to require landowners receiving damage permits to allow public hunting on their land. Not surprisingly, the volume of permits over this 14-year span increased with herd growth.

**Table 17.** *Deer damage comparisons for early 1990s and early 2000s.*

Year	Counties	Permits	Deer Killed
1992	49	327	3,177
1993	45	310	2,521
1994	45	310	2,847
2003	65	740	4,451
2004	64	732	8,352
2005	63	759	6,291





## The Gamekeepers



D. JOHNSON



J. KUBISIAK



DNR FILE

to this 31-page document, which described all of the basic principles of deer herd management including details of the SAK method of deer population calculation. (Many biologists thought it was the best Wisconsin publication on deer since Dahlberg and Guettinger's 1956 book.)

Seventeen public meetings involving the entire public spectrum interested in deer were conducted to review rule and management alternatives. Public exposure to white-tailed deer management, biology, research, regulations, and deer population estimation mechanics was unprecedented and more widespread than anywhere in the United States. The DNR should have received special recognition for this effort... it didn't.

### 1994 and 1995 Deer Seasons

The next two deer seasons were nothing short of incredible as the harvest increased to levels exceeding even the dreams of most hunters. The 1994 gun harvest started the upward trend at 307,629 with a record bow kill at 66,254, but the fall deer herd was still estimated at 1.5 million, *nearly half-again higher than the goal*. The 1995 gun harvest of deer increased to 398,002, and the archery harvest added 69,269 more (the expected kill total when "at goal" would have been only 330,000). The herd reduction was timely as a severe 1995–96 winter followed.

Wildlife managers and deer researchers were still looking for better harvest techniques. They were also most concerned that many northern deer management units continued to exceed the prescribed over-winter population goal.

### New Deer Harvest Strategies

Throughout the early part of 1996, legislators joined in the fray through the news media and meetings across the state to hear what "the people" had to say about deer hunting. While the usual anti-DNR sentiment was recorded, one productive idea that surfaced was requiring deer hunters to shoot an antlerless deer before they could shoot a buck (later named "Earn-a-Buck").

The Earn-a-Buck proposal was a good idea because most deer hunters would do virtually anything to get a chance to pursue big antlers, even kill something they viewed as a producer of next year's buck. Another idea to surface at the same time was to adopt a four-day October antlerless-only gun hunt. The weather was more pleasant at this time of year, so such a season was appealing. Also, the "second opening" (in addition to the November gun hunt) was expected to draw a large number of hunters.

The Natural Resources Board approved a statewide antlerless-only deer season for 1996. The season immediately received strong public criticism, and the Legislature intervened. Following some intensive discussions with the DNR staff, a compromise was struck using Earn-a-Buck and a four-day antlerless hunt to be held in advance of the traditional November deer season in 16 deer management units. The early hunt was entitled "Zone T" for "Temporary."

### 1996 Deer Season

The Earn-a-Buck strategy was not very popular early on but did produce good results during the fall of 1996. A Zone T hunt was also implemented for the first time on October 24–27, the first October antlerless-only gun hunt in 100 years. It was applied to certain deer management units in which the herd level was much above the winter goal and a traditional buck-plus-quota season would be unlikely to reduce the herd to within 20% of goal.

The 1996 harvest was 388,791 with gun (including 6,160 taken through deer damage shooting permits and 3,347 harvested by Chippewa hunters) and 72,941 with bow. The winter deer herd was still 20% above the established goal, and another severe winter followed. Despite its obvious effectiveness for herd reduction, the Earn-a-Buck regulation was restricted in application and not used for "out-state" (outside of what became known as CWD zones) application again until 2004 because of its unpopularity. (It was used in CWD zones in 2002 and in later years.)

Nineteen ninety-six was the sixth consecutive deer season of low yearling buck percentages in the agricultural regions of the state. Prior to that, Hunter's Choice permit

units averaged between 85% and 88% yearlings in the kill. The percentages now were in the 65% to 75% range. Researchers thought that the combination of landowner-imposed restrictions (access and harvest), “quality deer management” (trophy bucks), liberalized antlerless deer harvest opportunities, and/or modified hunter behavior (more standing than driving) were the reasons for this change.

Hunting access restrictions were exacerbated by the increasing sale of woodlots by farmers to recreational owners interested in their own exclusive use. In the 1950s farmers owned 6.5 million acres of woodlots. By the 1990s this ownership had dropped to about 1.5 million acres. Residential sprawl was also adding numerous refuges to the landscape when hunting was not permitted. The increased use of bait for deer led to a more sedentary style of hunting. All of these factors seemed to contribute to lower buck exploitation.

### Major Deer Study

The year 1997 was pivotal for the deer management program. The Conservation Congress complaints to the Natural Resources Board seemed endless no matter what DNR studies were conducted or how many public meetings the staff held. At their February 1998 meeting, the DNR recommended a broad stakeholder group be formed to study the deer program... again.

The Conservation Congress argued that they were the proper group to lead the deer program study. Eventually, the Natural Resources Board decided the Conservation Congress adequately represented the deer hunting public and directed them to proceed. The three-year, well-funded project entitled “Conservation Congress Study for Deer Management 2000” (abbreviated to Deer 2000 committee) got underway.

The following mission statement was given by the board to direct the study:

*Develop statewide strategies to manage for a healthy deer herd and optimize opportunities for a diverse group of users, while minimizing conflicts, keeping deer herds at goals, and maximizing safety, with as much consistency and simplicity as possible. Recommendations must give hunters predictable seasons with flexibility for addressing special herd management needs, and yet be relevant when herds are overabundant, below, or at established population goals.*

The Deer 2000 committee was composed of veteran Conservation Congress members, researchers, and wildlife management administrators. David Ladd, a business owner and 29-year Conservation Congress member, served as the committee chair. Dan Trainer, Jr., former dean of the College of Natural Resources at the University of Wisconsin-Stevens Point and former Natural Resources Board member, also

### Quality Deer Management

A new phenomenon arose to the surface of public debate beginning in the early 1990s. A growing faction of the deer hunting public began to organize and become very vocal about raising large antlered deer in Wisconsin. Since the tradition of buck hunting was so strong and many hunters took such pride in “getting the big one,” it was no real surprise that the effort to organize this common interest was keen.

The national Quality Deer Management Association (QDMA), which promoted a “let ‘em go, let ‘em grow” philosophy, offered the perfect mechanism for Wisconsin’s buck-oriented deer hunters, and several chapters were soon formed. Some members liked Earn-a-Buck results and supported its use. While some stated quality deer management (QDM) objectives were the same as the DNR’s (maintaining “healthy” deer herds and habitat), in practice some objectives would soon conflict. Some QDM enthusiasts publicly mischaracterized Wisconsin deer biology by claiming grossly distorted sex ratios, prolonged breeding seasons, *genetic drift*, and social stress so as to create a false emergency and an apparent need to change deer harvest strategies (to produce more older bucks). The movement was also a catalyst for privatizing deer management, i.e. where landowners control not only who hunts on a property but also what is harvested. They spoke of “their” deer as though deer were private property. The stated objectives of the QDMA may be sound, but these were often selectively disregarded or distorted by QDMA members and other QDM enthusiasts in favor of hunter self-interest.



*Most deer hunters would do virtually anything to get a chance to pursue big antlers.*

#### *Genetic drift*

*The occurrence of random changes in the gene frequencies of populations.*



## The Gamekeepers

represented the Conservation Congress. Les Strunk was a longtime big game hunter and 14-year veteran of the Conservation Congress. Raleigh Fox was a retired Wisconsin police officer, private deer farm operator, and 12-year veteran of the Conservation Congress. Ten others appointed to the committee were members of the Conservation Congress Big Game Committee.

Deer 2000 committee members from the DNR included Tom Hauge, Bill Mytton, Tom Harrelson (Bureau of Law Enforcement director), Robert Rolley (researcher), and Jordan Petchenik (resource sociologist). Two outside consultants, Drew Howick of Howick Associates and Bert Stitt of Bert Stitt & Associates, served as facilitators and to ensure the public of neutral party guidance throughout the process.

Several study groups were formed under Deer 2000 including one that had the awkward title of “Believability of DNR White-tailed Deer Population Estimates Study Group.” It was composed of 11 Deer 2000 participants, a facilitator, and two DNR liaisons. The committee’s charges were to study the issues concerning the believability of the DNR’s deer population estimates and verify methods that are scientific in nature and understandable by the general public. The committee was to look at current Wisconsin methods as well as those of other states and Canadian provinces for herd estimation and public communications.

### 1997 Deer Season

Biologists’ concern about the severe winter of 1996–97 resulted in conservative antlerless quotas for the 1997 deer season. When the 1997 season produced a gun harvest of 292,513 (6,676 damage complaint deer and 3,347 tribal deer) and an archery total of 67,115, they realized the previous winter’s losses were not as great as expected. The over-winter herd remained 20% above the goal despite the first back-to-back severe winters since 1971 and 1972.

### 1998 and 1999 Deer Seasons

In 1998, to maintain the momentum for keeping people informed and up-to-date on Wisconsin’s deer management principles, a second edition of *Wisconsin’s Deer Management Program* was published, adding sections on ecology, population modeling, public health problems, and historical trends. Copies of the publication were widely distributed to the public and numerous conservation organizations.

Prior to the 1998 deer season, the fall deer population was estimated at 1.3 million animals. Increased quotas in the fall of 1998 produced a gun harvest of 332,254 and an archery kill of 75,301. Deer damage shooting permits accounted for only 3,569 deer in the gun harvest because the law changed to require the landowner to make their land accessible to other hunters, and many chose not to participate. The Lake Superior Chippewa kill accounted for 3,569 deer in the gun harvest. The Zone T October season was used for the third year in a row but only in Unit 67A—it accounted for 1,969 deer in the kill. The DNR issued 25,300 bonus antlerless tags in management units that had a greater number of quota permits than applicants.

The 1999 deer season produced a harvest record that drew the attention of the entire country when 690,068 gun hunters registered 402,204 deer. A record number of 252,462 archers added 92,203 more deer to the harvest. Deer damage shooting permits accounted for 4,125 deer, and the tribal take was 3,263 deer. *Almost 500,000 deer were killed in one season.* Still, the kill was less than one-third of the preseason population, and deer researchers warned that the high harvest rate needed to be continued.



### **Deer Disease Concern**

In the meantime, the high deer numbers had the department concerned that some virulent disease could potentially have devastating effect on the herd. With notes of alarm about CWD in Colorado and South Dakota and bovine tuberculosis in Michigan, a wildlife disease conference was held at Stevens Point in 1998 to learn more about disease threats and develop contingency plans. Sponsored by the DNR and the Wisconsin Department of Agriculture, Trade and Consumer Protection, the conference was very valuable in stimulating various states to assess their wildlife populations more carefully for disease. Special invitations were extended to members of the captive cervid industry to alert them to their vulnerability.

CWD was identified as a likely threat for Wisconsin because of the high number of private deer farms (947) and the number of state hunters hunting deer in Colorado. The conference influenced the DNR to begin testing deer for CWD in the fall of 1999. Dr. Julia Langenberg, the Bureau of Wildlife Management's wildlife veterinarian, directed testing over the next three years.

### **Deer 2000 Study Results**

Almost every aspect of the Deer 2000 study was steeped in controversy, and after hundreds of meetings, the Conservation Congress endorsed a new plan of attack for addressing the pressing problem of too many deer, an angry hunting public, complex regulations, and a skeptical Legislature. The voluminous three-year study was completed in August 2000 and presented to the Natural Resources Board. The basic recommendations of the report were summarized as follows:

- The traditional nine-day gun season should be followed by a four-day, Thursday through Sunday, antlerless-only hunt starting two weeks after Thanksgiving.
- A muzzleloader season should start the day after the regular nine-day season ends and extend for ten days.
- Archery season should start on the Saturday nearest September 15 and close the Thursday prior to the start of the regular nine-day gun season.
- A late archery season should start the day after the gun season closes and continue until January 15.
- Archery equipment should be legalized during the regular nine-day gun season under the gun license authorization.
- Zone T (four-day October hunting) and Earn-a-Buck regulations should be used to control herd size. Zone T regulations should apply when deer populations are not expected to be within 20% of unit goals. Zone T seasons should start from Thursday to Sunday in late October for antlerless deer only. Earn-a-Buck regulations should be used when the herd remains 20% above unit goals for a third consecutive year of Zone T regulations.
- A youth hunt for 12- to 15-year-olds should be initiated on the Saturday of the Zone T season but only in units not participating in Zone T.
- Baiting deer should still be authorized, but the quantity restriction is reduced from 10 gallons to 6 gallons. Baiting should be allowed from September 1 until the end of the deer season and restricted to three sites per 40 acres, 50 yards from a dwelling, and 100 yards from a road posted 45 mph and higher.
- Recreational feeding should be allowed from May 1 through August 31, with a six-gallon size limit within 100 yards of a dwelling. No feeding should be allowed within 100 yards of a county, state, or federal highway posted at 45 mph speed limits or more.
- Group buck hunting should be prohibited, but group antlerless deer hunting should also be allowed.





## The Gamekeepers

Most important for the DNR, *the SAK methodology was endorsed as the best method available for population estimates*. The committee, however, recommended that helicopter surveys, trail counts, or landowner surveys should be conducted in select units to improve hunter confidence in the system. The committee also felt the DNR should have a resident wildlife manager or wildlife technician in each county of the state (23 of 72 counties do not have that staffing level), and it thought a master hunter program should be implemented for hunters to earn recognition for completing classroom sessions, homework, marksmanship testing, and landowner service, believing that it might improve hunter-landowner relationships and increase access to private land.

The final report of the "Believability of DNR White-tailed Deer Population Estimates Study Group" was also completed in 2000. Seven recommendations were recorded and are summarized from the 39-page report as follows:

1. The DNR should continue to use the Sex-Age-Kill (SAK) population modeling method for estimating deer population size. It is the consensus of this study group that the SAK is *the best method* for white-tailed deer population estimation available at this time. [Author's emphasis]
2. An outside audit of the scientific methods of the SAK population estimation model should be completed. Recommendations for SAK improvement should be implemented by the DNR.
3. Studies must be conducted to evaluate the effectiveness, efficiency, reliability, and viability of alternative herd estimation methods to increase public confidence. Methods should include, but are not limited to, helicopter surveys (visual and infra-red video), trail counts, hunter surveys, landowner surveys, and deer-vehicle accident data indices.
4. Methods of measuring changes in public confidence in deer population estimates over time should be established using the services of a professional firm specializing in survey design.
5. DNR should contract with a public relations/marketing organization to develop programs to educate the public regarding deer population estimating methods in Wisconsin.
6. DNR should review, enhance, and expand their efforts to educate their own staff regarding deer population estimation to enable them to provide more consistent communications with the public.
7. The Conservation Congress should monitor the DNR's implementation of recommendations from the Deer 2000 study groups, especially the contracting and financing of outside agencies, organizations, or firms referred to in the previous recommendations.



PHOTOS: DNR FILE

Researcher aging deer. The Deer 2000 report reaffirmed the DNR's SAK methodology.



J. KUBISAK

Helicopter surveys confirmed the accuracy of the SAK estimates.

### 2000 and 2001 Deer Seasons

Despite the string of record deer harvests, the burgeoning deer herd was estimated at 1.8 million prior to the 2000 hunting season. The fall season produced another phenomenal harvest: a world record 618,274 deer. Gun deer hunters killed 528,494 deer. A record 97 management units were designated Zone T with unlimited antlerless permits. The Chippewa harvest was 2,981, and 3,907 deer were killed under the agricultural damage shooting permit program (518 permits in 63 counties).

The Earn-a-Buck option did not apply in 2000, but hunters could purchase unlimited bonus antlerless permits in addition to any issued Hunter's Choice permit. Including bonus permits, *over two million antlerless permits were issued in October and November*. (The theoretical bag limit exceeded an incredible 200 deer per person for the season because two bonus antlerless tags per day could be purchased during bow and gun seasons.)

In following through on recommendations from the Deer 2000 report, biologists flew a helicopter survey that winter for Unit 54A to sample the accuracy of the SAK estimates. The results were very close (within acceptable mathematical probability), leaving no room for skeptics except to challenge the integrity of those flying the survey... which they did.

The 2001 deer season mirrored the previous season with a total harvest of 446,957 (361,264 by gun). The Zone T hunt included 76 units using free antlerless permits, and the regular November nine-day season included Hunter's Choice permits and the purchase option for multiple antlerless tags. A short December 6–9 hunt was held in Zone T areas to allow another chance for hunters who had not filled their antlerless tags. The tribal harvest was 2,573 deer, and 3,810 deer were killed under the deer damage program (534 permits in 62 counties). The total gun harvest came in at 361,264 deer out of a herd estimated at 1.5 million.

DNR wildlife biologists and wildlife technicians collected the heads from numerous deer during the 2001 hunting season as part of the DNR's ongoing disease surveillance study. Brian Buenzow and some other wildlife technicians noticed that one deer processed at Mount Horeb (southern Wisconsin) did not look healthy. The deer samples collected would send shock waves across the state and the nation.

### Deer Management after CWD

On February 28, 2002, DNR wildlife managers and Wisconsin deer hunters received the worst possible news about a wildlife population: chronic wasting disease (CWD) was detected in samples collected from three deer killed near Mount Horeb. The event triggered the most concentrated effort of deer research and disease management in the Wisconsin's history. It also included one of the biggest public informational campaigns ever undertaken by the DNR.

CWD is a slowly developing, degenerative brain disease of elk, moose, white-tailed deer, and mule deer similar to mad cow disease. It is a form of transmissible spongiform encephalopathy, a disorder that causes sponge-like holes to form in and around brain cells. Symptoms involve progressive weight loss, lack of awareness, drooping ears, excitability, teeth grinding, excessive salivation, difficulty swallowing, and a patchy coat. While CWD was not known to affect humans, no study had ever documented that this was not possible.

The causative agent for CWD is not a bacteria or a virus. It is thought to be an abnormal form of the prion protein that cannot be killed by normal sterilization techniques. CWD prions usually form in nervous and lymphatic tissue. It belongs to a family of diseases known as transmissible spongiform encephalopathies (TSEs), or prion diseases, and apparently only affects the cervid or deer family. No known treatment exists, and the disease seems to be always fatal. The disease had previously been identified in Colorado, South Dakota, Nebraska, Utah, New Mexico, Wyoming, and Saskatchewan.

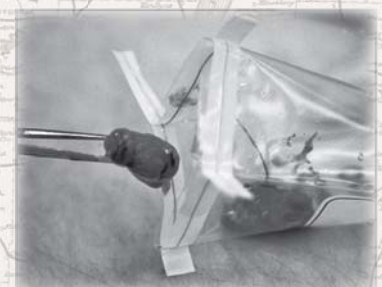
### Interagency Team Formed

The first organizational move the department made following the CWD discovery was to establish an Interagency Health and Science Team involving the Wisconsin Department of Agriculture, Trade and Consumer Protection, Wisconsin Department of Health and Family Services, U.S. Department of Agriculture, U.S. Geological Survey (National Wildlife Health Center and Cooperative Wildlife Research Center), and the University of Wisconsin. The team also established communications with other states that had experience with CWD.

The interagency team met on a regular schedule, planning strategies for attacking the disease and serving as technical consultants to the DNR on every aspect of the disease control effort. Public health concerns were a top priority for the team along with addressing impacts on the agricultural community. The health of the statewide deer herd was a serious question, and the team endorsed increasing CWD testing in all parts of the state in addition to thorough testing in the area where the disease had already been detected.

### Initial CWD Program

The DNR's Bureau of Law Enforcement embarked on an intensive investigation to identify sources of the infection. The Bureau of Wildlife Management established a field command center at the DNR's Dodgeville Area Headquarters to direct all



*Disease testing of Wisconsin deer detected CWD on February 28, 2002.*

PHOTOS: DNR FILE



## The Gamekeepers

CWD-related activities. By March 2002, initial surveillance plans were well underway to better assess CWD prevalence and distribution. Landowners within a 415-square-mile area of Mount Horeb received special collector's permits to kill deer and bring them into DNR field stations set up in several key locations.

A CWD Internet web page was established to provide up-to-date information on the disease and its eradication progress. The DNR's first mass media campaign objective was to inform the public about the discovery and make them aware of what CWD was and what the DNR was doing about it.

The DNR indicated that their goal was to eradicate the disease in the deer herd, but they were very open about the lack of disease information available nationwide. DNR staff revealed recommendations from other states experienced with the disease, which indicated the best and only method of control at the time was to drastically reduce the deer herd in the Mount Horeb vicinity. Objections were immediately raised, and many hunters and landowners were upset about the DNR plan.

### Opposition Materializes

Two organizations composed of landowners and hunters formed in opposition to the DNR's plan to eradicate deer in the infected area. One group was called "Citizens Against an Irrational Deer Slaughter," and the other was "Citizens and Landowners for a Rationale Response." Initially, the DNR staff met with these groups to talk about their concerns and to discuss alternative strategies. It became clear early on that gaining their support would be difficult. Concerns ranged from being unconvinced about the causes of CWD, disruption of traditional deer hunting culture, and disbelief that CWD could be controlled or eradicated. Follow-up special meetings were abandoned in favor of open public meetings.

### Public Meetings and More Test Results

The DNR and cooperating state and federal officials met at the Mount Horeb High School and conducted a public meeting on March 20, 2002, to update people on progress to date. About 1,400 people attended the meeting—historically one of the largest single public gatherings ever held in Wisconsin on a wildlife issue.

Public reactions to CWD were mixed. The general lack of scientific knowledge about the disease and its effects in the United States did not help the public's confidence in embracing the DNR's plans to attack CWD. There was support for "doing something" expressed by the public, and many seemed to be hoping for a quick fix to surface. No alternative plan materialized.

More CWD testing results were made available on April 23. Eleven more tissue samples tested positive collected from 516 deer. Including the original samples, 14 deer had tested positive for the disease up to this point.



PHOTOS: DNR FILE

### Expanding CWD Program

A strategy for containing CWD was proposed on May 1 and disseminated to the public through the news media and the DNR Web site. A 411-square-mile "Management Zone" (MZ) was proposed consisting of 13 deer management zones in all or a portion of 14 south central counties. Additionally, a 287-square-mile portion within the MZ where positive samples were found was designated "Intensive Harvest Zone" (IHZ). Biologists established a goal of 15,000 deer to be killed.

More public informational meetings were conducted around the state in May. Four more CWD-positive samples were reported on May 22, bringing the total of CWD confirmations to 18. The first shooting permits were issued to landowners on May 28 for shooting periods of June 8–14, June 13–19, August 10–16, and September 7–13.

By fall, the DNR produced the publication *Understanding Chronic Wasting Disease* with the assistance of the CWD Interagency Health and Science Team. The 13-page document outlined the background of the disease, explained health concerns, identified hunting control methods, and outlined a management plan for CWD control. The DNR also produced a three-panel, colored brochure entitled *The Facts About White-tailed Deer and Chronic Wasting Disease* and distributed it that fall. The brochure text addressed defining CWD and 2002 hunting objectives. It also revealed CWD study results obtained from the federal Center for Disease Control and the Wisconsin Department of Health and Family Services that found no known link between CWD and neurological disease affecting humans.

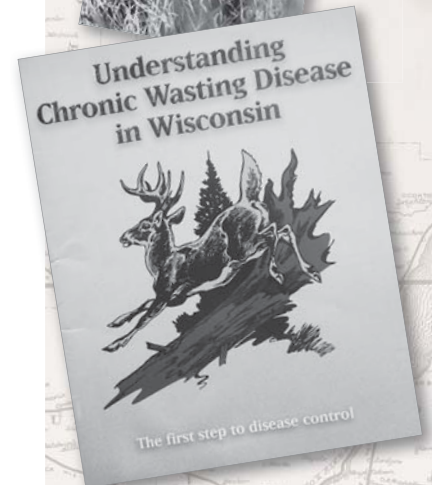
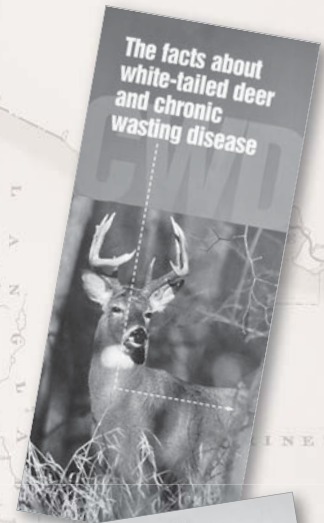
### Baiting and Feeding Restrictions

The Natural Resources Board approved emergency rules to establish a special hunt in the CWD Management Zone on June 28. A temporary statewide ban on baiting and feeding was also approved based on strong recommendations of the CWD Interagency Health and Science Team. The latter restriction stirred up all kinds of controversy among hunters, landowners, and commercial vendors including sporting goods dealers, bait manufacturers, feed mill operators, and resorts.

It was widely known by biologists that baiting and feeding artificially concentrated deer, increased animal-to-animal contact, and created contaminated sites, which are believed to increase exposure to infectious prions, thus increasing the risk of disease transmission. Wildlife disease experts had repeatedly emphasized the critical importance of eliminating baiting and feeding when managing elk and deer. A national CWD management plan contained recommendations to eliminate all baiting and feeding as a critical disease control strategy.

Scientific documentation compiled in the white paper *Chronic Wasting Disease and the Science in Support of the Ban on Baiting and Feeding Deer*, by Dr. Tim Van Deelen of the DNR staff, added some powerful facts to the baiting discussions. Keith McCaffery summarized these facts and others as follows:

- The repeated placement of feed to one spot distinguishes baiting and feeding from all natural foraging by deer.
- Scientists have documented that CWD, bovine tuberculosis, and a number of other diseases are transmitted in the saliva of deer. Bait-feed sites foster conditions favorable for disease transmission.
- Bait-feed sites become progressively contaminated with saliva, nasal droppings, urine, feces, and disease organisms. (*Author's note: Later research documented that the oral infectious rate of the CWD agent, when bound to soil particles, was found to be 680 times greater than the unbound agent.*)
- It only takes a small quantity of feed to cause multiple family groups of deer to habitually revisit a site if feed is repeatedly replaced.
- Artificial feeding profoundly changes deer productivity and survival, increasing the need for special herd control hunts that causes public controversy.





## The Gamekeepers

- Deer distribution and behavior are changed by bait-feed availability on private land and draw deer away from public lands with higher hunting pressure.
- Bait-feed sites near homes and resorts create poaching temptations.

McCaffery, whose professional credentials are impeccable and whose expertise is recognized nationally, concluded his summary with the following:

*Baiting and feeding are not necessary for hunting or proper management of deer. Isn't preventing establishment of disease far preferable to attempting to control disease among free-roaming wild deer? All deer baiting and feeding activities should be stopped immediately nationwide.*

### 2002 CWD Control

The 2002 fall deer season was necessarily complex to get the herd reduction plans underway for CWD control. In the Intensive Harvest Zone (IHZ), the initial goal was to *reduce the deer population to zero* to eradicate the disease (in retrospect, an impossible strategy on privately owned land, resulting in reduced agency credibility). The archery season was September 14 through January 31, and gun season ran from October 24 through January 31. Hunters were required to kill an antlerless deer before they could shoot a buck and could kill as many bucks as they could earn.

In the Management Zone (MZ), the goal was to reduce the deer population to ten deer per square mile to contain the spread of the disease. The 2002 archery season was September 14–November 21 and December 2–January 3. The gun season was October 24–27, November 23–December 15, and December 21–January 3. Again, hunters had to kill an antlerless deer before earning a buck, and there was no limit on the number of bucks they could earn.

Statewide deer license sales slumped as did the deer harvest. CWD was scary enough, but fears were exacerbated as rumors circulated that CWD might be connected with the deaths of three northern Wisconsin men who died of a brain disease. The urban legend implied that this was the result of a game feed where venison was served. The *Milwaukee Journal Sentinel* ran a regular column entitled “Deadly Game” that covered CWD-related issues and often fed the rumor mill. The urban legend rumor wasn't refuted by factual information in the media until the evening of the fall gun season in November. Still, there was a concern that CWD might be present statewide. The intensive testing by DNR was encouraging, but some families no doubt remained very nervous about eating venison.

Despite reduced hunter numbers, the 2002 fall and winter harvest of deer in the MZ accounted for a good number of deer. Archery hunters killed 6,306 deer plus another 680 deer in the IHZ. Gun hunters killed 35,471 MZ deer and an additional 8,829 in the IHZ. It wasn't enough, however, and plans were made to increase the harvest. At the same time, the DNR bowed to public pressure objecting to herd eradication in the IHZ. The new approach was to strive for a greatly reduced deer population.

The logistics associated with deer processing within CWD zones were very labor intensive and expensive. Personnel had to be trained for registration and collection of tissue samples (deer heads). Special facilities had to be located (and rented if necessary) in advance of the hunt. Detailed instructions, permits, and tags had to be prepared for participants. Frequent publicity had to be generated to ensure that people knew where to go to register deer.

A system for testing deer and notifying hunters of the result had to be in place. Deer carcasses not wanted by hunters had to be stored in refrigerated semi-trailers to prevent spoilage. Once testing cleared an individual carcass, it had to be retrieved and transported to a deer pantry (for the needy) or taken to a landfill. If not cleared, the carcass would have to be incinerated at a special facility. First-year costs for all activities associated with CWD came in at a staggering \$12 million.



PHOTOS: DNR FILE

*Statewide deer license sales slumped, and some families remained very nervous about eating venison.*

Governor Doyle traveled to Washington, D.C., and testified before a congressional hearing on the seriousness of CWD in Wisconsin and to request special funding to help pay for the extraordinary costs associated with eradication. It was the first time in Wisconsin history that a wildlife issue had obtained this level of governmental attention.

## 2002 Deer Season

The 2002 statewide gun deer hunting season was conducted from November 23 to December 1 and had deer hunters nervous about CWD. Although deer hunting license sales dropped 11%, gun license sales still topped 619,000, and archery added over 226,000 licenses to the total. The pre-hunt deer population was estimated at 1.3 million, nearly a quarter-million higher than goal.

The total 2002 gun harvest was 317,888. The archery season accounted for 54,133 additional deer. A special youth hunt for those 12 to 15 years of age was held October 26. Zone T hunting was conducted October 24–27 in 45 deer management units that were at least 20% above the prescribed over-winter goal. It was the seventh consecutive year of Zone T seasons, and it added 28,144 deer to the gun harvest. The Chippewa deer harvest was 1,905 deer, and damage shooting permits (552 in 59 counties) tallied 4,451 deer.

Antlerless deer were also hunted in the Zone T units and CWD control zones December 12–15. Hunters were required to kill an antlerless deer before they were allowed to shoot bucks during special CWD hunts. Another 8,084 deer were killed and registered during the December hunt.

## 2003 CWD Control

The bad news got worse in 2003 when Illinois reported two CWD-positive deer found near Rockford (adjoining southeast Wisconsin's Rock and Walworth counties). The DNR intensified deer testing in southeastern counties and assigned a CWD Team to that area.

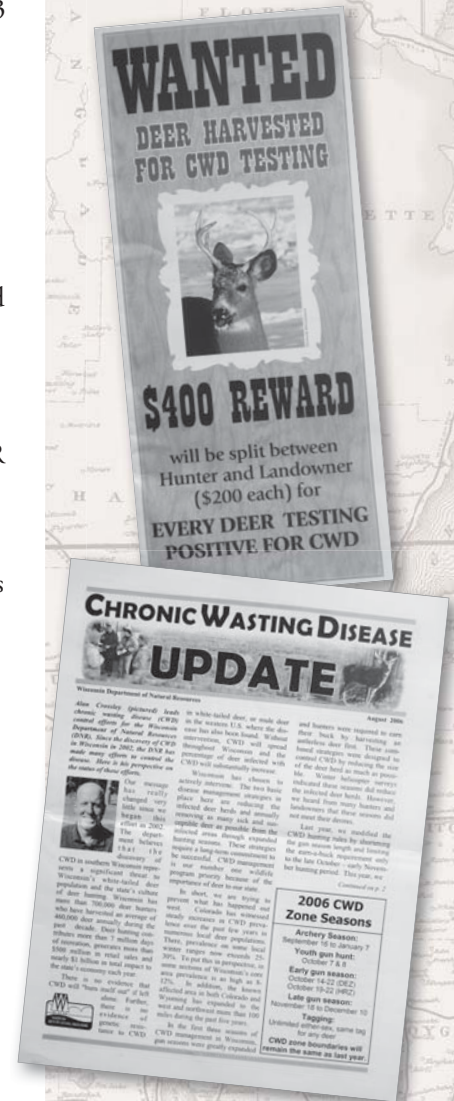
The large expenditures of hunter dollars and public controversy over CWD issues led to yet another audit by the Legislative Audit Bureau. Their letter report, dated October 27, 2003, focused on how \$12.6 million was spent, noting that about half was committed to collection, extraction of tissue, facilities for work, herd reduction, and carcass disposal. Beyond a review of management strategies and citing areas needing future attention, no major discrepancies were noted or discussed.

The 2003 deer season framework expanded the Intensive Harvest Zone (IHZ) in the southwest and created a new one in Rock County to reflect the CWD findings in Illinois. The Management Zone designation for buffer areas around the IHZ was changed to “Herd Reduction Zone” (HRZ) to better reflect the new management strategy to reduce rather than eradicate the deer herd.

In September, the DNR released the first of a series of informational pamphlets entitled *Chronic Wasting Disease Update* in which Director Hauge explained the goal to keep people informed about CWD developments. It was also revealed that more than 40,000 statewide deer samples had been completed the past fall and winter, the largest CWD sampling effort ever completed in the United States. A total of 208 CWD-positive deer had been detected to date, but none were found outside the HRZ.

Whitetails Unlimited, in partnership with the DNR, offered a reward system to encourage hunters and landowners to kill deer in HRZ. One reward, entitled “Focus on Positives,” offered \$400 for each deer that tested positive for CWD, split evenly between the hunter and landowner. Also, each hunter who registered a deer was entered in a raffle as another part of the reward system. A later drawing awarded \$20 to each winner.

The 2003 IHZ season was September 13–January 3 for archers and October 30–January 3 for gun hunters. The new harvest objective was to reduce the population to five deer per square mile or below if possible. Most hunters were required to shoot an antlerless deer before killing a buck. Landowners were given a free hunting license and two buck tags upon request. The rules were about the same in the surrounding HRZ, except that the gun season was October 30–November 2 and November 22–January 3.





## The Gamekeepers

The 2003 season results were significantly larger than the previous year and most encouraging for reducing CWD risks. Surveys revealed that hunters in the HRZ hunted four days longer and killed twice as many deer as those outside the zone. Archers killed 7,428 deer in the HRZ and 1,194 in the smaller IHZ. Gun hunters killed 46,082 in the HRZ and 12,500 in the IHZ.

The special CWD registration logistics got more complicated and much more expensive when sanitary landfill sites refused to accept deer carcasses that had not been tested negative for CWD. Six deer processing facilities were contracted by the DNR within the IHZ to hold processed meat until the deer was cleared (testing negative for CWD). A large number of refrigerated semi-trailers had to be rented to hold other deer carcasses (IHZ road-killed deer or IHZ donated deer deemed unsuitable for food) until testing was complete. All carcasses had to be numbered and tracked.

Six sampling stations were established by wildlife biologists at various locations within the IHZ to register deer, remove entire heads for later tissue extraction and sampling, and serve as collection points for unwanted deer carcasses, carcass parts, venison, and butchering process by-products from IHZ deer. All of the appropriate deer parts had to be transported by the DNR staff to a tissue sampling facility or to a centrally located holding facility. At one point, ten refrigerated semi-trailers were parked at the holding facility.

Deer held in these refrigerated semi-trailers that ultimately tested negative for the disease could be disposed of by the landfill method. Those testing positive for CWD or whose status was uncertain were disposed of by a chemical digester or by incineration, both expensive processes. All unwanted, donated, or IHZ road-killed deer carcasses were tracked to enable them to be disposed of properly. Retrieving one such carcass from hundreds in a trailer was a daunting task.

Literally thousands of work hours were consumed with transporting deer carcasses to the holding facility; carcass storage; transporting some carcasses to meat processors, some to an incinerator facility, and some to a chemical digester; keeping track of carcass identification; semi-trailer logistics; head collection and delivery for sampling; and the myriad logistical details associated with each task. These hours were robbed from other important wildlife management activities, producing significant program shortfall.

The cost of CWD control activities for the Fiscal Year ending June 30, 2003, was \$4.7 million. Funds came from a variety of sources including the wildlife damage account (\$1.2 million), Pittman-Robertson (\$600,000), USDA (\$240,000), reallocated DNR funds (\$2.3 million), and DNR indirect funds (\$360,000).

### 2003 Deer Season

The pre-hunt deer population in 2003 was estimated at 1.38 million animals (nearly 30% above goal), indicating the previous season barely held the numbers in check rather than producing the anticipated reduction. By this time, the volume of special

*Labor-intensive CWD field collection and lab testing costs reduce or eliminate wildlife management activities in other program areas.*



PHOTOS: DNR FILE

deer season regulations had grown so large that a separate 72-page pamphlet was published by the DNR.

License sales increased over the previous season, indicating that some of the CWD nervousness was abating. The gun season was November 22 to November 30. Archery season was in two segments: September 13 to November 21 and November 1 to January 3. The 2003 deer hunting results were 388,344 deer by gun and a state record 95,607 deer by bow. Chippewa hunters accounted for 2,686 deer, and damage shooting permits (740 in 65 counties) tallied 7,191 deer.

Zone T hunts in 2003 (antlerless deer only) were held in 47 deer management units from October 30 to November 2 simultaneously with CWD control units (with Earn-a-Buck rules) and special youth hunts for 12- to 15-year-olds and accounted for an additional 40,566 deer. Zone T hunts were also held December 11-14 along with CWD control units. The special seasons accounted for 17,236 deer.

### CWD Progress Report

In early 2004, Bureau of Wildlife Management director Hauge touted the successes of the CWD program, highlighting the dramatic changes in the hunting seasons, state-wide health testing, large-scale data systems, labor-intensive carcass handling, land-owner/hunter incentive programs, and a special session of the Legislature. An impressive 56,000 deer were tested over a three-year period. The CWD herd reduction effort was off to a good start, and most of the public seemed to be adapting to the new procedures. Hauge praised the cooperative spirit of hunters and landowners but cautioned that more work was needed:

*We still have much to do. In southeastern Wisconsin, we need to increase our sampling of deer to more precisely map out the range of disease. We ask for your continued support to harvest and bring them in for testing so we can base our management on the best data possible. We will also continue to collaborate with the state of Illinois on our mutual goal of reducing the deer herd and eliminating CWD.... In southwestern Wisconsin, we know much more about the range and prevalence of the disease, but your help is just as vital here. Herd reduction and testing are the cornerstones to CWD control. CWD control is the first step to CWD eradication.*

As of July 20, 2004, 115 deer had tested CWD-positive for the year. While the limited number of infected deer was encouraging, the bad news was that seven positive tissue samples came from a new area in Rock County. While not a surprise because of the earlier notice about the Illinois occurrence, it still was a setback because a new battlefield had been identified with new challenges.



DNR FILE





## 2004 Biopolitics

Business and public pressure eventually convinced the Legislature to statutorily allow limited baiting and feeding practices to continue. Compromise legislation was put in place in 2004 to limit the ban on baiting and feeding in counties or parts of counties within a designated CWD zone. The restriction could also be enforced within 10 miles of a captive or free ranging animal that tested positive for CWD or bovine tuberculosis. Losing this statewide feature of the control plan severely restricted the agency's ability to control the disease as well as deer herd management strategies.

The compromise baiting and feeding legislation didn't address the disease transmission concern nor was the law readily enforceable. The Interagency Health and Science Team had considered this issue a "no-brainer" and were supported by scientists across America and Canada. Yet, the Legislature ignored the facts and the tremendous statewide risk.

The above example demonstrated the Legislature's tendency to get involved with very technical natural resources issues and reflected reluctance to support CWD control efforts. A bill on captive wildlife, after years of delay at the legislative level, was hastily passed in the shadow of the CWD discovery without adequately addressing CWD ramifications. In fact, about a dozen last minute amendments attempted to neutralize the law or kill it entirely. A companion bill to enable the DNR to control the movement of legally killed deer from known CWD-infected areas died in committee.

All of these legislative efforts did little to convince skeptical landowners in and around CWD-infected areas about the seriousness of the disease and the importance of their cooperation in control efforts by the DNR. Herd reduction would continue to be resisted by a significant number of landowners, creating refuges throughout the known infected area. This directly hindered the DNR's progress in controlling the deadly disease.

## 2004 CWD Control

The 2004 deer hunting season framework for CWD zones remained complicated. To start with, the Intensive Harvest Zone was renamed Disease Eradication Zone (DEZ). The archery season was September 18–January 3, and the gun season was October 28–January 3. Again, most hunters were required to kill an antlerless deer before killing a buck.

DEZ Landowners were given a free hunting permit (in lieu of a license) and a buck tag if requested. Hunters were allowed to harvest as many bucks as they could earn. More than one million antlerless permits were issued. Other hunters were allowed to hunt deer on private land within the DEZ if granted a free permit (again, in lieu of a license) by a permit-holding DEZ landowner.

The larger buffer area around the DEZ was still called the Herd Reduction Zone (HRZ). Within this zone, the 2004 archery season was September 18–January 3, and the gun season was October 28–31 and November 20–January 3. All hunters were required to kill an antlerless deer before killing a buck with no limit on the number of bucks that could be earned.

A total of 145 of 19,167 deer tested were positive for CWD by the end of 2004. Of those tested, 143 came from the DEZ and only two from the larger HRZ. The reward system established through the cooperation of Whitetails Unlimited during the previous season was used again and continued to be popular.

The 2004 season result documented that more hunters kept their deer within CWD zones, indicating less concern about the disease passing to humans. Archers killed 1,332 deer in the DEZ and 10,149 in the HRZ. Gun hunters registered 13,586 in the DEZ and 44,660 in the HRZ. The increased harvest was encouraging to DNR biologists, and the herd reduction objective was progressing. Testing and carcass handling was carried out again as it was done in 2003. Over 2,100 deer were donated to the food pantry program.

Biologists pored over the season results and thoroughly examined harvest patterns throughout the winter. By all appearances, the basic herd reduction methodology was

working. Complaints had fallen off, and hunters seemed to be accepting the complicated regulations necessary for dealing with the problem. CWD costs for the fiscal year were \$5.6 million.

DNR biologist Dr. Robert Rolley produced another major publication entitled *Controlling Chronic Wasting Disease in Wisconsin*. This 20-page progress report presented a review of CWD history, explained Wisconsin's management plan, and documented the results through May 2005. The report cited the long-term (since 1934), slow progress in eradicating bovine tuberculosis (TB) in the United States as an example of the patience needed in addressing CWD. Rolley's CWD report also revealed that Michigan had been struggling with TB in their free-ranging deer herd for the last ten years. Michigan's methodology for disease eradication was identical to Wisconsin's CWD plan, using intensive hunting along with a ban on baiting and feeding. The report noted that Michigan's program was showing steady progress toward complete disease eradication, but the improvement was in small increments each year.

## 2004 Deer Season

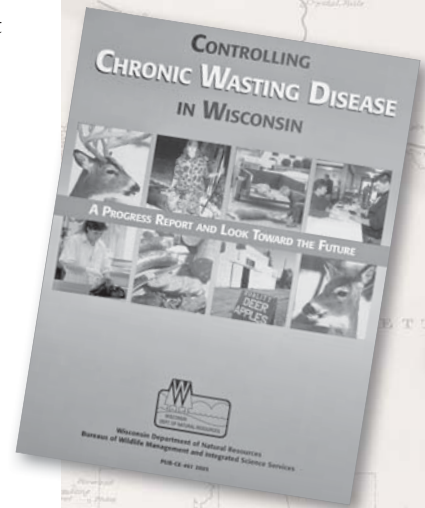
The 2004 deer hunting season was again explained in 72 pages of a special hunting pamphlet. Deer seasons now comprised six types:

- Early Zone T gun (October 28–31)
- Nine-day gun ("regular season" November 20–28)
- Muzzleloader (November 29–December 8)
- Late Zone T gun (December 9–12)
- Archery (September 18–November 18 and November 29–January 4)
- CWD herd reduction (cited above)

The resultant complexity was effective for harvest but baffling to people. A season framework that was previously explained in a few lines of text now covered 29 pages. For the first time in history, the DNR listed the archery, gun, and muzzleloader season dates and bag limits by management unit in an attempt to minimize hunter confusion.

Once again, many deer management units were above prescribed population goals resulting from a combination of mild winters and insufficient harvests in 2002 and 2003. Forty-eight units were designated Zone T (over goal) and 26 units designated Earn-a-Buck in an attempt to kill more antlerless deer. Over one million antlerless deer permits were again issued statewide.

The final 2004 harvest results were 413,794 deer taken by gun and another state record of 103,572 deer by bow. The Chippewa tribe registered 2,922 deer. Damage



## Car and Deer Collisions

Car-killed deer have been used as an indicator of deer abundance since the early 1950s. A Deer-Vehicle Crash Information Clearinghouse was established in 1993 to document the extent of the problem in Wisconsin and to increase public awareness. Table 18 illustrates the type of information documented:

**Table 18.** Wisconsin deer-vehicle collisions, 2000-2004.

Year	Total Crashes	Deer Related <sup>a</sup>	% Deer	Fatalities	Injuries	Pre-hunt Population	Salvageable & Unsalvageable Carcasses <sup>b</sup>
2000	139,510	20,468	14.67	5	806	1.8m	47,555
2001	125,403	19,914	15.88	9	801	1.5m	45,702
2002	129,072	20,470	15.86	6	710	1.3m	45,278
2003	131,191	21,666	16.51	13	792	1.6m	47,841
2004	128,308	19,846	15.47	11	686	1.6m	48,316

<sup>a</sup>"Deer Related" means only those reported to the Department of Transportation.

<sup>b</sup>"Salvageable and unsalvageable carcasses" reflects a better indicator of actual deer-vehicle collisions.



## The Gamekeepers

shooting permits (732 in 64 counties) accounted for 8,352 deer. The total combined gun and archery take was over 500,000 again and was the second highest deer kill of all time in Wisconsin and the fifth highest of all time in the United States.

Unfortunately, the deer season success was marred by a hunting incident just northeast of Rice Lake that stunned residents and horrified people hearing about it in national news coverage. One hunter shot six others, killing five in a dispute over trespassing that had racial overtones. All the victims were from the Rice Lake area. The shooter was later tried, found guilty of murder, and sentenced to life imprisonment.

### 2005 Biopolitics

The 2005 season was expected to follow the same format because the techniques employed were very successful in increasing the antlerless harvest statewide. However, the DNR staff was blindsided at the Natural Resources Board meeting in March when the board refused to allow the department to establish Earn-a-Buck seasons in 26 units.

At the same March meeting, Conservation Congress chair Steve Oestreicher claimed that “the DNR has grossly overestimated the deer population, and there is no need to reduce the herd in these zones.” He warned the board that landowners in eastern Wisconsin planned to refuse access to hunters the coming fall to protest the zones, stating, “They don’t want to be told what to do.” Bureau of Wildlife Management director Hauge responded by stating that the 1.7 million deer population estimate was sound. He noted that the 2004 season harvest of 517,128 deer was the second highest total in state history and warned that car kills and crop damage would increase in the Fox Valley “deer factory” if the Earn-a-Buck option was not implemented.

Board member Herb Benke, normally a strong supporter of deer herd biology, argued that Earn-a-Buck applied to eight zones in his area the previous year and that “hunters were hungry for large bucks and shouldn’t have to suffer under Earn-a-Buck again this fall.” He then made a statement that reinforced an old view about the agency: “Perhaps we need to have a different approach in the future instead of a Gestapo approach that tells people what they have to do before they can do something. Hunters are saying ‘You’re taking the fun out of hunting. I’m not going to do it anymore.’”

Losing the Earn-a-Buck option was a blow to wildlife managers and removed an effective tool for deer herd control. Despite endorsing the technique in the Deer 2000 report just a few years earlier, the Natural Resources Board and the Conservation Congress chose instead to take on the risk of under-harvest again.

Outdoor writer Pat Durkin couldn’t help but poke fun at what he was witnessing. In his April 10 column in the *Wisconsin State Journal* he wrote:

*We’ve seen news about hunters opposing Earn-a-Buck regulations, the Natural Resources Board caving to those complaints, legislators opposing deer license fee increases, wildlifers proposing a reduced-fee junior license, bowhunters opposing more crossbow hunting, traditionalists supporting atlatl hunting [a spear throwing device], continued cries for rearranging Zone T hunting, demands for outsiders to audit the DNR’s deer estimates, and warnings that the Conservation Congress will lie down with lawmakers if the Natural Resources Board doesn’t heed their every wish.*

*To paraphrase Jerry Seinfeld, “This isn’t a deer management program, it’s an insane asylum.” The most worrisome development—other than chronic wasting disease appearing in New York—is Wisconsin’s hunter-legislators dictating deer policy. Some hunters like the attention, but to paraphrase President Kennedy, “Those who seek power riding the back of a tiger shouldn’t be surprised when they end up inside.” When the future Legislature favors forest ecosystems over deer overabundance, the Conservation Congress shouldn’t be stunned when lawmakers decide their group is a budget cut few will miss.*

DNR deer management strategies received another setback at the April fish and game hearings. A Conservation Congress advisory question to eliminate Zone T and Earn-a-Buck options was favored by a vote of 5,741 to 2,705. Representatives John



A CORNELL

Gard and Scott Gunderson became frequent critics of the DNR deer management strategy and added credence to the opposition as well as undermining the credibility of wildlife biologists.

The toll that the constant deer management criticism was having on the Wildlife Management Bureau staff and field biologists could not be measured but no doubt was having a bad effect on morale, especially since their own policy makers on the Natural Resources Board appeared to side with the opposition. DNR staffers were cheered a bit when a group called the Wisconsin Deer Hunters Association made a presentation to the board. In addition to supporting the science end of the deer program, they presented startling new information obtained from a 2003 survey conducted by the Western Association of Fish and Wildlife Agencies. *The survey showed that 73% of Wisconsin resident deer hunters and 78% of nonresident hunters were satisfied with the 2003 deer season.* However, no one paid any attention to this testimony.

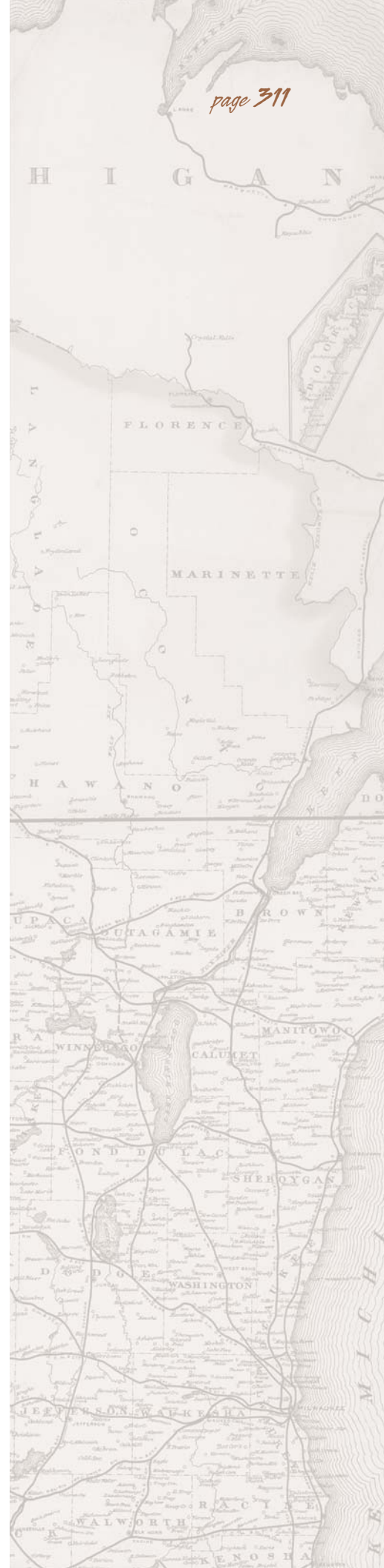
By April 2005, the DNR reported it had processed more than 75,000 deer for disease testing. Of those, 470 had tested positive (445 in southwestern Wisconsin, 24 in three southeastern counties, and one in Dane county). The total affected area now covered over 1,300 square miles, but 80% of the CWD-positive deer were in a 126-square-mile area in the southwestern part of the state.

Struggling to establish consensus, deer ecologist Keith Warnke met with Conservation Congress, Whitetails Unlimited, and Wisconsin Wildlife Federation representatives on June 7 and proposed a major deer season modification designed around all of the points of objection. (A DNR rules simplification committee had worked during the year, and Warnke had rolled some of their recommendations into the proposed season framework.) Warnke brazenly laid a proposal on the table that probably stunned the entire group:

1. A two-year moratorium on Zone T and Earn-a-Buck outside of the CWD Herd Reduction Zone.
2. Hunter's Choice permits eliminated; antlerless permits sold on a first-come-first serve basis.
3. A four-day December antlerless deer season statewide (three-year sunset).
4. In units that had been scheduled for Zone T and Earn-a-Buck, the first antlerless permit will be issued free and additional permits at \$2 each. The Earn-a-Buck structure will remain available in the Wisconsin Administrative Code.
5. The Mississippi River Block units will have the same season as the rest of the state.
6. Archery licenses will have two tags: one for buck only and one for antlerless only. Additional antlerless tags can be purchased.
7. Performance standards include monitoring herd control units after each season to ensure an antlerless to antlered harvest ratio of 2:1 is maintained. After two years, if the harvest ratio is not being met, Zone T will be restored, but earlier in October further from the rut to avoid archery season conflicts. Earn-a-Buck could also be restored in 2006 and 2007 if control units remain over goal.

This was a put-up-or-shut-up deal. Warnke went on to say, "This proposal is contingent on every participating group signing on the dotted line that they will positively support this proposal at every step through its implementation and will endorse the measurements after the two-year trial period. Either their way is effective (according to the measures we include) or we go back to what we currently have. If not, the deal is off and our rule green sheet will include a four-day antlerless gun hunt statewide starting on the Thursday closest to October 15."

After a vehement discussion and thorough review of the details, the participants went back to their respective organizations to explain the proposal. Ultimately, Warnke received all the endorsements he needed, and the proposal was drawn up for







DNR FILE

### Special Hunts

Wisconsin has established special rules for enabling individuals to sponsor a disabled individual to participate in a special deer hunting season since 1990. In the five seasons ending with 2005, the seasons were held for nine days in early October and involved several hundred participants annually.

Metro deer hunts were first established in 1992. These special October seasons were designed to control or at least minimize the number of deer living in and around municipalities where firearm deer hunting was limited. Property damage, including gardens, bird feeders, ornamental trees, and agricultural crops along with car-deer collisions, had increased in certain areas and required extra hunting opportunity and effort.

Youth hunts for hunters 12 to 15 years of age were authorized by law in 2001, but no official record has been kept of participation levels. The one-day October hunt is known to attract a few thousand hunters each fall.

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the Natural Resources Board and later public hearings. The proposal received public endorsement, and the necessary rules passed on through the board to the legislative committees. Some members of the Legislature tried to modify the rules again, but the public outcry and unfavorable press coverage ultimately led to rules implementation that fall.

Former Big Game supervisor Frank Haberland once said, "I get a kick out of seeing every new deer management study committee conclude that they've finally resolved the program's long-standing problems. Wisconsin hunters have proven the experts wrong each time. The fact remains—hunters will *never* be satisfied with the deer management program." Unfortunately, Frank may be right.

### 2005 CWD Symposium

The Bureau of Wildlife Management sponsored a three-day International CWD Symposium on July 12, 2005, in Madison and drew 350 participants. Experts from 40 states and eight European countries combined their talents to assess the disease and share their knowledge about progress to date. In addition to reassuring people that Wisconsin's management strategy was on the right track, the symposium revealed that many studies were underway to learn more about the disease and its human impacts. (Later it was learned that of 46 CWD research studies underway nationwide, 34 were taking place in Wisconsin.)

Michael Miller, Colorado's chief veterinarian and the symposium's keynote speaker, indicated he was encouraged by Wisconsin's aggressive management strategy and understanding of the public's response. Miller observed that "public interest and public resolve has waned. This is a much larger fight than a lot of people signed on for, but we don't understand the long-term ecological consequences. Prevention is a lot easier than control, and eradication is not going to happen."

The symposium was encouraging because it reinforced Wisconsin's strategy for controlling the disease. However, it also revealed that CWD was being detected (*not spreading*) in new areas when a positive sample was discovered in the state of New York. A short time later, it was detected in West Virginia, close to the border of Pennsylvania and Virginia. Alberta and Saskatchewan indicated that captive deer had tested positive for CWD. Zoo elk in Ontario had the disease. It was very clear the problem was widespread.

Many were also shocked to learn that 720 licensed farms in Wisconsin in 2005 held over 30,000 captive elk and deer, clear disease threats. Worse, 29 farm-raised deer and one elk had tested CWD positive, and over 314 captive deer were reported to have escaped to the wild since April 7, 2003. The symposium message was universally clear: The CWD fight was just starting.

### CWD Program Administration

In August 2005, DNR's South Central Region was forced to realign its staff to address CWD administration. With wildlife biologist vacancies occurring at Boscobel, Dodgeville, and Poynette and no funding to hire extra positions, regional wildlife supervisor Carl Batha reduced the area wildlife supervisor positions from three (Horicon, Madison, and Dodgeville) to two (east and west).

The third supervisor position was converted to become "CWD coordinator" to enable full-time focus on this complex administrative effort rather than seasonally taxing the entire staff with the burden. Batha then realigned the jurisdictional boundaries and increased the administrative responsibilities of the remaining two area supervisors.

### 2005 CWD Control

The CWD zone framework for the 2005 season was similar to what it had been in 2004. The archery season opened in the Disease Eradication Zone (DEZ) on September 17 and extended through January 3. The first part of the season through October

26 was an either-sex hunt. Earn-a-Buck rules applied for the next period through November 17. The final part of the season was either sex again.

The DEZ gun season was October 27 through November 13 with Earn-a-Buck rules (no limit on the number of bucks that could be killed) followed by another season from November 19 to January 3 where hunters could kill an unlimited number of deer of either sex. Landowners in the DEZ were given a free hunting license if requested. In the Herd Reduction Zone (HRZ)—the buffer area surrounding the DEZ—the archery season was the same as the DEZ framework, and the gun season was in two parts: October 27–30 was designated for Earn-a-Buck, and November 19–January 3 was an either-sex hunt in which an unlimited number of deer could be killed.

Archers tallied 962 deer in the DEZ and 7,253 in the HRZ. Gun hunters registered 11,152 in the DEZ and 44,753 in the HRZ. The antlerless harvest was significantly reduced from the previous year, and a mild winter would mean more deer than desired in 2006. This was not an encouraging sign for the DNR and would undoubtedly impact future management decisions.

### 2005 Deer Season

Seventy-two pages of regulations guided hunters for the 2005 deer hunting season. As it was the year before, six types of season existed:

- Early Zone T gun (October 27–30)
- Nine-day gun (“regular season” November 19–27)
- Muzzleloader (November 28–December 7)
- Late Zone T gun (December 8–11)
- Archery (September 17– November 17 and November 28–January 3)
- CWD herd reduction (cited above)

The daily and season bag limits varied so greatly based on what the hunter used to kill deer (bow or gun) that they again needed to be listed for each deer management unit. The bag limit varied from either sex, antlerless only, and bucks only. Most times in Zone T areas, hunters could shoot a deer of either sex; however, archers and gun hunters were restricted to antlerless deer October 27–30 and December 8–11. Additional antlerless deer tags could be purchased by residents (\$12) and nonresidents (\$20).

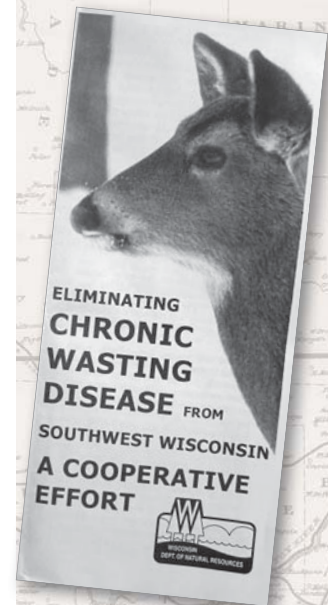
A variety of other regulations were used for the first time:

- Skinning – Deer carcasses could now be skinned before registration. The head was required to remain attached, and the hide and lower legs, if removed, must be presented at the time of registration.
- Carcass tags – One free antlerless deer carcass tag was issued with each gun or archery license (antlerless bonus carcass tags and Zone T antlerless carcass tags were combined into one). Additional tags could be purchased in each unit until tags sold out and were valid in the unit for which the tag was issued or in any Zone T or CWD unit.
- The boundaries of units 35, 38, 39, 75A, and 76 were modified. Unit 5 was incorporated into units 2 and 6.

The Zone T seasons were held in 12 state parks, five metro (city) units, and 41 other deer management units. A youth hunt was held in non-Zone T areas and in CWD units on October 29.

Opening weekend of the regular nine-day November season accounted for more than 161,000 deer. While an impressive number, wildlife biologists expressed concern that the antlerless harvest was reduced from the previous year (likely because of the reduction in Earn-a-Buck rules, fewer Zone T zones, and a one percent reduction in deer license sales). The gun harvest at the end of the season on November 27 was about 312,000, and the antlerless portion of the harvest was again below the 2004 level.

The final statewide gun deer harvest was the sixth highest on record with 387,310 registered. Chippewa hunters harvested 2,163 deer, and the remainder were taken by





## Deer Pantry Program

Beginning in 2000, the DNR funded a deer pantry program that offered hunters an opportunity to donate deer meat or money (for deer processing) for needy individuals. Laurie Fike of the Bureau of Wildlife Management coordinated the program and its annual reporting system. The first year attracted 65 participating counties, 160 meat processors, 350,000 pounds of meat, and \$18,000 in donations from over 5,000 hunters.

The next four years of the program were equally successful, although participation fell off in 2002 when CWD was first reported. Cooperation from hundreds of state and federal organizations as well as some private groups including Hunt for the Hungry and Hunters Against Hunger raised money as well as facilitated meat donations. A new record was set in 2004 when over 500,000 pounds of meat were donated in 53 participating counties and 121 deer processing facilities. The record did not include the 2,100 or so deer donated from the Disease Eradication Zone.

As expected, deer carcass donations were reduced in 2005 as more hunters lost the fear of CWD. However, the venison quantity for the program was still respectable (6,300 deer). The 2005–07 budget bill for the DNR committed \$600,000 of state wildlife damage funds to be used for the deer pantry program.

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state gun hunters. Archers accounted for an additional 78,450 deer. Hunters seemed thrilled with the high proportion of mature bucks in the harvest but still bashed the very season techniques (Earn-a-Buck and Zone T) that produced them. It seemed likely that Earn-a-Buck and Zone T would be expanded in future seasons unless some other strategy surfaced.

## Future Deer Impacts

Those paying attention to national deer population trends are aware that continuing high deer populations can be devastating ecologically as well as economically. Southern states found their deer stunted in size and treated like pests instead of prized resources. States like Pennsylvania now have a landscape devoid of many plant species. One study plot in that state documented 41 plant species reduced to 21. Another ten-year study documented a complete loss of certain bird species.

Pennsylvania's deer herd and management circumstances are almost identical to Wisconsin's dilemma, but Wisconsin has the edge. Although the deer herd is over the winter goal here, liberal harvests can still restore the balance between deer and vegetation. In Pennsylvania, politics have become so dominant over biology that it would take a miracle to save their forest industry and rapidly deteriorating plant species diversity.

Hope for restoration of biological control over the Pennsylvania deer herd got a boost when their Conservation Commission hired wildlife biologist Dr. Gary Alt (Ph.D. in forest resources) to restore order. He aggressively sought to reduce the deer population and gave hundreds of educational talks around the state on his rationale. However, sporting groups led by the United Sportsmen of Pennsylvania fought him at every step and eventually convinced Pennsylvania's Conservation Commission to restrict Alt's activities so severely that he couldn't even attend deer-related meetings of his own staff. Alt resigned his position in 2003 but vowed to work on the outside to defeat the suicidal mission the state had created for itself. In commenting on the deer program, Alt observed, "There is no other animal the states have paid more attention to and spent more money on than the white-tailed deer. And there is no better example of malpractice."

On November 13, 2005, Dr. Alt came to Wisconsin to participate in a meeting sponsored by the Uplands Branch of the Quality Deer Management Association in Mount Horeb. Dr. Alt had previously distinguished himself nationally as a bear biologist, but his deer experience in Pennsylvania had given him special notoriety. The meeting featured Alt speaking on "Chronic Deer Mismanagement" and Dr. Tom Heberlein, University of Wisconsin-Madison professor emeritus of rural sociology, speaking on "Fire in the Sistine Chapel: How Wisconsin Responded to CWD." The meeting moderator was Dr. Rob Wegner, author, cultural historian, and former editor of *Deer and Deer Hunting* magazine.

While the general theme of the meeting seemed to indicate it was going to be a typical DNR bashing affair, the sponsors made it clear that it was not. During opening remarks to about 100 attendees, Dr. Wegner presented a brief slide presentation about the nation's strong deer hunting tradition and the importance of maintaining quality in the hunting experience. He then introduced Alt and Heberlein.

Dr. Heberlein spoke first and presented various surveys and charts about human dimensions likely not comprehended by many in the audience. While he was critical of the DNR for neglecting the sociological aspects of CWD and the "fire brigade"



J. KUBISAK

approach by the agency in combating the disease, he also blamed Wisconsin citizens for not sitting down with the DNR staff and negotiating a resolve. He told the group, "You will never beat the DNR in the science game. The DNR is the state's scientific organization and it's run on scientific principles. Quit reacting and be proactive. Sit down and agree on how to evaluate deer numbers and then find ways to achieve those declines." Dr. Heberlein also presented economic information obtained from a 2004 report by Richard Bishop, a University of Wisconsin-Madison economist. When CWD was first detected in 2002, the DNR experienced an 11% drop in license sales amounting to \$3.4 million in lost revenue. Coupled with about \$20 million in DNR expenses to fight the disease and dispose of unwanted deer, the impact on other wildlife management programs was clearly suppressing. Bishop documented the economic impact to state businesses to be in the neighborhood of \$60 million in 2002 and 2003.

Dr. Alt spoke next and entertained the audience with a series of slides about deer biology and research findings. He empathized with Wisconsin's DNR and encouraged cooperation in problem solving, observing that "most of Wisconsin's deer problems are happening everywhere, but biologists across America are thankful they aren't working [i.e. employed] here. I'm not here to tell you how to manage your deer. I do know one thing: Dwelling on what was decided in the past won't move you forward, and neither will festering with mistakes."

Dr. Alt went on to encourage people to sit down at the table with the Wisconsin DNR and work out solutions to their deer problems: "Take responsibility. Show society what you can do for them. When Pennsylvania imposed antler restrictions to shoot more does, some hunters said they'd shoot first and count antler points later. If you want to kill hunting, just keep saying stupid things into a microphone in front of thousands of people."

Alt's message was very forceful about the consequences of deer overabundance based upon his firsthand experience directing the Pennsylvania wildlife program. He cautioned, "Deer are endangering forest ecosystems everywhere. That's our greatest challenge, and hunters must look beyond their gun barrels. When nothing is growing within five feet of the ground, you have too many deer. Recognize that fact and do something about it."

After the conference, Keith McCaffery spoke out more strongly about vegetative damage by deer: "I agree with Gary but would add that the hardest part is that you can have too many deer long before you have nothing growing in the understory. By the time the understory is dominated by ferns and sedges as in the parts of Allegheny Plateau, it may be extremely difficult to restore it."

It appears clear that in the years ahead the DNR, deer hunters, the forestry industry, the agricultural industry, the tourism industry, businesses, environmental groups, universities, numerous state agencies, federal agencies, the Legislature, and virtually everyone impacted by the white-tailed deer need to cooperatively arrive on the same page to work out solutions for future deer management strategies. Without cooperation, science-based solutions will continue to flounder against skeptics and a distrustful public.



K. McCaffery

This "browse line" was created by hungry deer. Deer damage can prevent regeneration of some types of trees.

